215 EXCAVATIONS AND RESTORATIONS (UTILITY LINES)

215.01 DESCRIPTION

The work performed in conjunction with the placement or repair of utility lines consists of trenching, shoring, sub grade replacement, surface course replacement, and pavement marking replacement for composite pavements, PCC pavements, and flexible pavements. The work shall be performed by utility companies or their contractors, herein referred to as "Contractor", and shall be subject to Chapter 34 of the Public Space Regulations (title 24, DCMR). In the event of any inconsistency with another provision of these specifications, the most stringent requirement shall govern. These specifications shall be used in conjunction with the Department of Transportation Standard Drawings for utility excavation repairs.

215.02 USE OF STEEL PLATES

The Contractor shall place the appropriate notification signs if steel plates are used at any point in the processes described herein. Further, the Contractor shall notify the Director, District of Columbia Department of Transportation or his or her designee before placing any steel plates in the Public Right-of-Way.

215.03 COMPOSITE PAVEMENTS.

(A) TRENCH EXCAVATION. The Contractor shall cut the full depth of pavement to a neat line by means of a power saw, as per the standard drawings.

(B) TRENCH BACKFILL FOR TEMPORARY RIDING SURFACE. The Contractor shall backfill with approved materials placed in 6 inch lifts to within 4 inches of grade.

The Contractor may use flowable fill as a backfill. If this option is employed, then the 6 inch shoulder described in 215.03(D) is not required, and the new base course described in 215.03 (D) shall be anchored to the existing base on one side, as per the standard drawings.

(C) TEMPORARY RIDING SURFACE. The Contractor shall place 4 inches of Hot Mix Asphalt to grade, as per the standard drawings.

(D) RESTORATION OF BASE COURSE

(1) RESTORATION CUT. The Contractor shall cut the pavement parallel to the roadway's longitudinal joints, with a minimum of 6 inches of shoulder beyond the original cut. If this places the restoration cut within 2 feet of a joint in the base course, the cut shall be extended to the joint. The asphalt surface course shall be cut full-depth to a neat line by means of a power saw. The base course shall be cut in the same manner to a depth of at least 3 inches. Pneumatic tools shall be used to remove the remaining portion of the base course, as per the standard drawings.

(2) REPLACEMENT OF BASE COURSE. The Contractor shall place Portland Cement concrete base course to a minimum depth of 10 inches. The bottom of the new base course shall be even with the bottom of the existing in place base course. The top of the new base course shall be 2 inches below the riding surface, as per the

standard drawings, so as not to be affected by subsequent milling and overlaying process.

In the winter, the Contractor may bring the PCC base course up to the grade of the roadway as a temporary measure, thereby eliminating the need for a temporary asphalt patch. In this event, the permanent restoration of the site in the manner described in 215.03(E) must be completed no later than April 15 immediately following the winter months during which these measures were taken.

(3) TEMPORARY FEATHERING. Between the time that a concrete base course has cured and the placement of the final asphalt surface, the Contractor shall feather all edges from the existing pavement to the concrete base course with temporary hot mix asphalt or high-performance cold mix, as defined in Section 819, at a rate of three (3) inches per inch of elevation.

(E) SURFACE COURSE RESTORATION-MILL AND OVERLAY LIMITS

(1) WIDTH. The Contractor shall mill and overlay the entire width of the affected lane or lanes.

(2) LENGTH. If the utility cut is less than 30 feet in length, the Contractor shall mill and overlay the length of the cut plus the sections from each end of the cut to the nearest traverse pavement joint. If the utility cut is 30 feet or greater in length, the Contractor shall mill and overlay the entire length of the block.

(3) SPECIAL CASES.

(a) Special Case 1 – Utility cut in two adjacent traffic lanes and crossing a longitudinal pavement joint

L_1 = distance in a traffic lane from the start of a utility repair to transverse pavement joint nearest to cross-over to the adjacent lane

L_2= distance in an adjacent lane from the end of the utility repair to the transverse joint nearest to the cross-over from the adjacent lane.

(i) If L_1 is less than 30 feet, the Contractor shall mill and overlay the length of L_1 plus the sections from each end of L_1 to the nearest transverse joints. If L_2 is less than 30 feet, the same paving requirements apply.

(ii) If either L_1 or L_2 are greater than 30 feet in length, the Contractor shall mill and overlay the full length of the block.

(iii) In all cases, the Contractor shall make all cuts in the base course parallel to either longitudinal or transverse joints.

(b) Special Case 2 – Diagonal Utility Cut.

If the utility cut is diagonal, the Contractor must replace the base course slab(s) through which the cut runs from joint to joint. The previous requirements on the length and width of milling and overlaying apply.

(c) Full Slab Replacement Option

The Contractor may fully replace all base course slabs affected by utility cuts in lieu of the above option of partial replacement and milling and overlaying of the surface course.

215.04 PCC PAVEMENTS

(A) TRENCH EXCAVATION AND BACKFILL. The Contractor shall excavate and backfill the trench according to 215.03(A) and (B). Flowable fill is an acceptable option.

(B) RESTORATION OF PAVEMENT. The Contractor shall replace pavement from joint to joint for each section affected by a utility cut.

215.05 FLEXIBLE PAVEMENTS

(A) TRENCH EXCAVATION AND BACKFILL. The Contractor shall excavate and backfill the trench according to 215.03(A) and (B). Flowable fill is an acceptable option.

(B) RESTORATION OF SUBBASE

(1) RESTORATION OF CUT. The Contractor shall cut the pavement with a 6 inch shoulder around the trench. All cuts shall be either parallel or perpendicular to the curb. All cuts shall be made to the pavement's full depth and shall be made to a neat line with a power saw.

(2) PLACEMENT OF SUBBASE. The Contractor shall place 12 inches of stone based aggregate to within 7 inches of the riding surface. If the Contractor chooses to use flowable fill, aggregate sub base is not required. The flowable fill shall also be placed to within 7 inches of the riding surface.

(C) RESTORATION OF PAVEMENT

(1) RESTORATION OF BASE COURSE. The Contractor shall place 5 inches of approved Base Asphalt in 2 lifts.

(2) RESTORATION OF SURFACE COURSE. The Contractor shall place 2 inches of approved Surface Asphalt to the same grade as the roadway.

215.06 CROSSWALKS AND SIDEWALKS

(A) CROSSWALKS. If a utility cut intersects one or more crosswalks of any material other than that of the surrounding roadway, the permanent restoration of the crosswalk(s) must restore it to its original condition and shall be made with materials identical to those of the original crosswalk(s).

(B) SIDEWALKS. Contractor must restore sidewalk to its original condition, using original bricks taken from the sidewalk, where feasible, or using materials similar to those of the original sidewalk.

215.07 PAVEMENT MARKINGS

If any pavement markings are affected by a utility cut, the Contractor shall replace them with temporary pavement markings within 48 hours. Immediately upon the completion of a

permanent repair, the Contractor shall replace temporary pavement markings with permanent markings.

215.08 REMOVAL OF PAVEMENT MARKINGS

When the location of underground utilities must be temporarily marked on the overlying pavement, the party requesting the markings shall remove all markings immediately upon:

a. Completion of the excavation;

b. At the time the markings are no longer necessary; or

c. Twenty (20) days after a permit is granted where excavation has not commenced.